



United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
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Chicago, Illinois 60604

Illinois Indiana
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U.S. EPA Issues Proposed Plan for Landfill Cleanup

Hagen Farm Superfund Site

Dunkirk, Wisconsin

July 1990

THIS PROPOSED PLAN WILL PROVIDE:

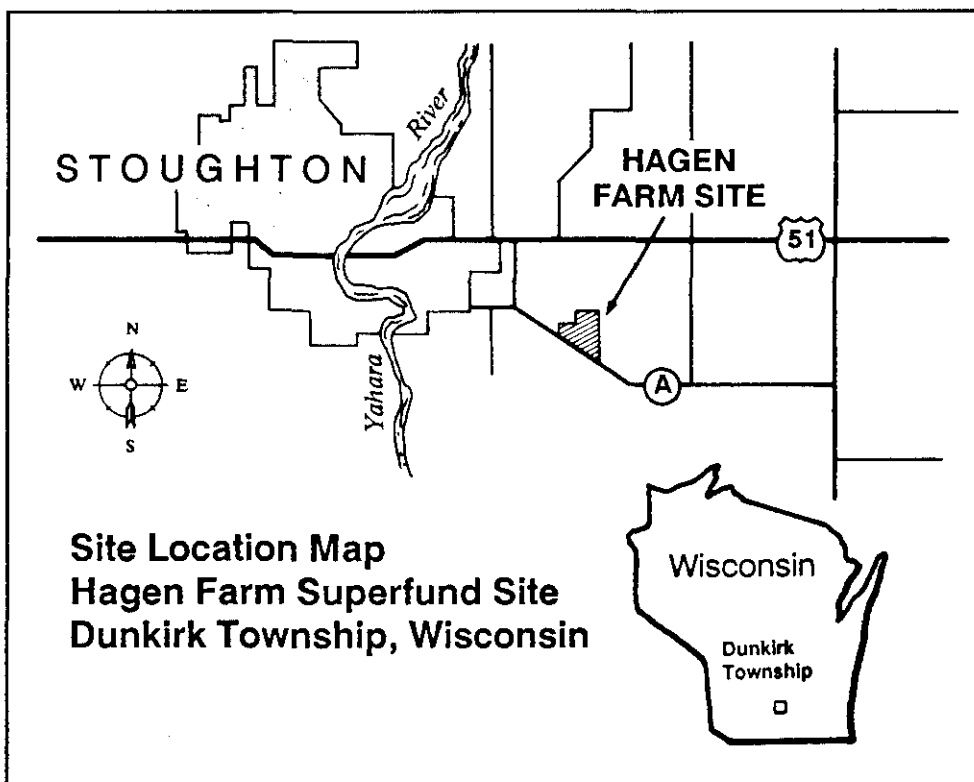
- Background information about the site;
- Information on the contamination found at the landfill during the Remedial Investigation;
- The five alternatives evaluated for cleaning up the landfill;
- The criteria used to evaluate the various alternatives;
- A description of U.S. EPA's preferred alternative; and
- Information on how the public may participate in the selection of this cleanup remedy.

Public Meeting

U.S. EPA and WDNR are sponsoring a meeting for residents of Dunkirk, and the surrounding area. At the meeting, U.S. EPA and WDNR representatives will present information concerning the Remedial Investigation and Feasibility Study and this Proposed Plan. They will explain the alternatives for the clean up of the landfill evaluated during the Feasibility Study.

Your written and oral comments on all of the alternatives, including the U.S. EPA and WDNR preferred cleanup alternative, will be accepted at the meeting. U.S. EPA will evaluate all public comments before selecting the cleanup remedy for the landfill.

Date: Thursday, August 2, 1990
Time: 7 p.m.
Place: Dunkirk Town Hall
County Trunk Highway N
near Stoughton, Wisconsin



Landfill Study Completed – Cleanup Plan Proposed

The United States Environmental Protection Agency (U.S. EPA), in consultation with the Wisconsin Department of Natural Resources (WDNR), has proposed a cleanup plan to address the contamination problems at the Hagen Farm landfill. The proposed cleanup plan was identified following a comprehensive evaluation of several alternatives. This evaluation of alternatives, known as a Feasibility Study (FS), was conducted by Waste Management of Wisconsin, Inc. (Waste Management) and Uniroyal Plastics under the supervision of U.S. EPA and WDNR. Waste Management, the transporter of waste disposed of in the landfill, and Uniroyal Plastics, a generator of hazardous wastes disposed

of at the site, were identified by U.S. EPA as parties potentially responsible for contamination problems at the Hagen Farm site. Thus, under agreement by U.S. EPA and WDNR, these two parties conducted the investigations at this site.

This document, called the Proposed Plan, summarizes the investigation into the contamination referred to as a Remedial Investigation and the Feasibility Study (RI/FS) which evaluated the five remedial (cleanup) alternatives. A description of the criteria used to evaluate the alternatives to identify the preferred alternative is included. This Proposed Plan, the FS, as well as other site-specific information, will be available for public review at the information repositories and the Administrative Record file location for this site (See

"Information Repository" and "Administrative Record File" page 11).

U.S. EPA is required by law to publish the Proposed Plan and make it available for public review. U.S. EPA and WDNR welcome public comments on the FS, this Proposed Plan, and all other documents contained in the Administrative Record for this site. U.S. EPA, in consultation with WDNR, may modify the preferred alternative or select another alternative presented in this Proposed Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives here. A 30-day public comment period will be held from July 11, 1990 to August 10, 1990. During this time, you are encouraged to send written comments to U.S. EPA (see "Public Comments Invited"). In addition, U.S. EPA will hold a public meeting on Thursday, August 2, 1990 at 7 p.m. at the Dunkirk Town Hall, County Trunk Highway N near Stoughton, Wisconsin.

Oral and written comments will be accepted on the cleanup alternatives and this Proposed Plan during the meeting. U.S. EPA, in consultation with WDNR, will consider all comments before making a final decision on the cleanup remedy for the landfill.

History of the Hagen Farm Site

The Hagen Farm Superfund site occupies about nine acres at 2318 County Highway A, approximately one mile east of Stoughton, Wisconsin (See Site Map). The site consists of one main disposal area (Area A) and two smaller potential disposal areas (Areas B and C), located in a former gravel quarry. The main disposal area, which is located in the southern portion of the site, encompasses six acres. The two smaller areas, which are located in the northeastern portion of the site, each comprise approximately 1.5 acres.

The Stoughton Airfield is located near the northwest corner of the site. The City of Stoughton municipal wells are located about two miles to the west, and eight private wells are located within 1,200 feet of the site. Wells at the site are no longer in use. Approximately 350 people reside within one mile of the site. The Yahara River is located approximately 1.5 miles to the west of the site and flows in a southerly direction. The ground water at the site flows south.

A Waste Management subsidiary company, City Disposal Corporation, transported wastes from Uniroyal Plastics, Inc. to the site from 1962 to 1966. City Disposal also deposited municipal waste at the site. In addition to municipal waste, waste solvent and other various organic materials were disposed of at the site, including **acetone**, **butyl acetate**, **1,2-dichloroethylene**, and **tetrahydrofuran**. (Words in bold are defined in the section entitled "Chemicals of Concern"). According to Uniroyal Plastics, hazardous wastes as described in the Resource Conservation and Recovery Act (RCRA), were disposed of at the site. RCRA regulates the generation, treatment, storage, and disposal of hazardous materials disposed of after 1980.

In 1966, the landfill was closed. In 1977, the property was sold to Orrin Hagen, who used the property to graze sheep and to farm. In 1987, Orrin Hagen transferred ownership of the site to Waste Management, Inc., the current owner of the site.

In October 1980, WDNR received a complaint from a resident alleging that the site had been used for the disposal of drummed wastes during the 1960s. WDNR investigated the site and observed that the land (which was then in use as a sheep pasture) contained outcroppings of solid vinyl and other evidence of past disposal practices.

Nearby residential wells were sampled by WDNR in November 1980. Traces of acetone and butyl acetate, and other

volatile organic compounds (VOCs), were detected in private wells. The wells were re-sampled in December 1980, along with an on-site well. On this occasion, contamination was not detected in the residential wells. However, VOCs including 1,2-dichloroethylene, acetone and butyl acetate were detected in the on-site well.

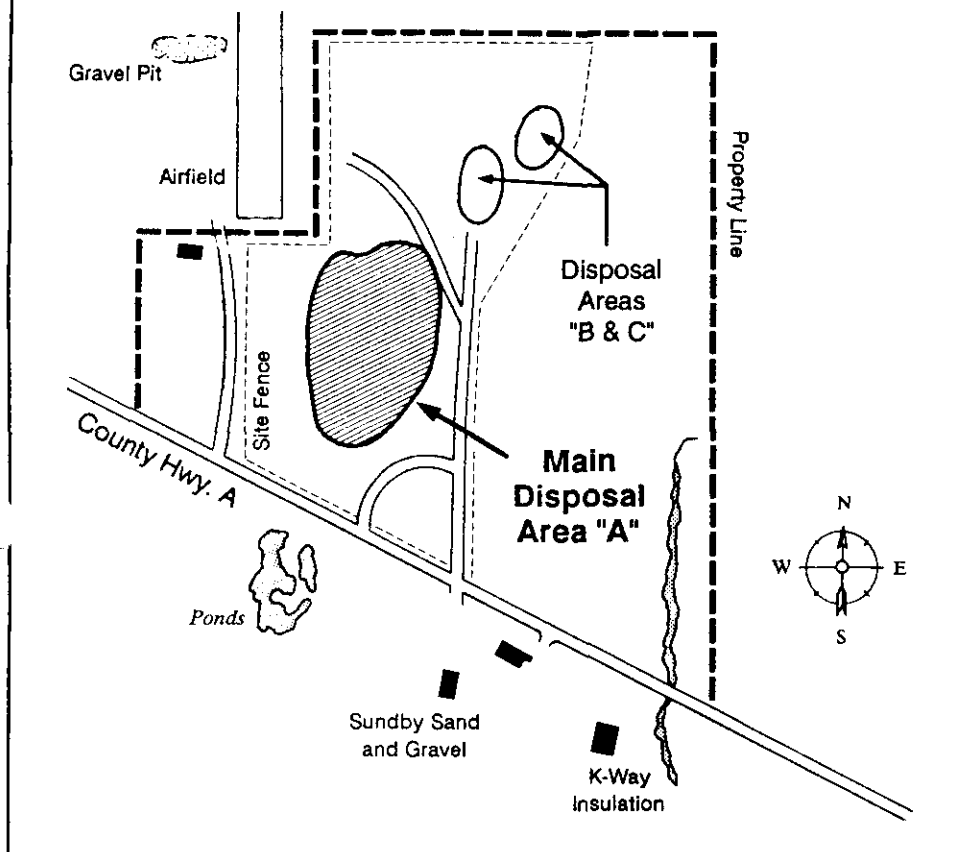
In 1981, the site owner discovered a barrel containing liquid on the property. Chemical analyses of the barrel contents indicated the presence of several VOCs. Traces of 1,2-dichloroethylene and other compounds were detected in on-site wells and nearby residential wells in 1981 and 1982. In March 1982, WDNR began a program of quarterly well monitoring at and near the site.

In November 1982, Uniroyal Plastics conducted a study to evaluate ground-water quality at and near the site. **Xylenes**, **ethylbenzene**, **toluene**, **tetrahydrofuran** and **chlorobenzene** were detected in some ground-water samples. The highest levels were found in samples from locations closest to the disposal areas.

Additional hydrogeologic studies were conducted by Waste Management in 1982, and the United States Geological Survey (USGS) in 1983. The studies helped to define the direction and rate of ground-water flow near the site in the shallow aquifer, and to determine the types of contaminants present (an aquifer is a layer of rock, sand, or gravel below the ground surface where all open spaces between rock or soil grains are filled with water). The studies indicated that water flowed away from the site, toward the southeast. **Benzene**, **chlorobenzene**, **tetrahydrofuran** and **xylenes** were detected in some on-site monitoring wells.

The site was proposed for inclusion on the National Priorities List (NPL) on September 18, 1985. The site was placed on the NPL in July 1987. The NPL is a list of hazardous waste sites that are eligible for investigation and cleanup under a federal program called Superfund.

Hagen Farm Site Dunkirk Township, Wisconsin



Plastics are currently completing a RI of ground-water contamination at the Hagen Farm site. U.S. EPA and WDNR are supervising this investigation. Upon completion of the investigation of the ground water, U.S. EPA will publish a report on the findings of the investigation in a document called the RI/FS Report. If it is found that the ground water poses an actual or potential health or environmental threat, U.S. EPA, with WDNR concurrence, will evaluate and recommend a cleanup method to minimize the threat. A public meeting will be held at that time to discuss the ground-water investigation and the cleanup alternatives.

Remedial Investigation Results

The RI for the landfill areas determined the nature and extent of site contamination through a series of surveys and sampling programs. The boundaries of the waste were determined by using electronic instruments. This procedure is referred to as a geophysical survey. Gases within the soil were tested to determine the types of contaminants in the soil. This study is referred to as a soil-gas survey. Samples were collected from holes, known as test pits, that were dug in the disposal areas to determine the location, type and thickness of the waste. Site geology and ground-water flow patterns were examined. Additionally, samples of waste, soil, air, and ground water were collected and tested for the presence of chemical contaminants.

Based on the sampling and survey program, the following conditions were found to exist:

- Based on prior knowledge of disposal practices, three disposal areas were believed to be present (areas A, B, and C) (See Site Map). However, based on the size of the potential disposal areas, existing site topography, and RI results, it appears that most waste disposal activity occurred in the main disposal area. The two smaller

In September 1987, Waste Management and Uniroyal Plastics signed a consent order, or agreement, with U.S. EPA and WDNR to conduct an investigation into contamination at the Hagen Farm site. The investigation began in July 1988 under the supervision of U.S. EPA and WDNR. Two operable unit studies, which are being conducted concurrently, have been defined for the site. Operable Unit I is intended to address soil and waste contamination issues at the landfill areas. Operable Unit II is intended to address the contaminated ground water. The Operable Unit approach allows the FS and the initiation of the cleanup plans for the landfill to proceed while further ground-water investigation is performed. The investigation for Operable Unit I was completed and submitted in early 1989. Since then, U.S. EPA, WDNR, Waste Management, and Uniroyal Plastics reviewed the potential cleanup alternatives. The draft FS was submitted in May 1990.

Based on the review comments of U.S. EPA and WDNR on the draft FS, a final FS was submitted in June 1990. This Proposed Plan is for Operable Unit I.

Scope and Role of Cleanup Action

The principal threat at the site is considered to be the ground-water contamination. The waste refuse and contaminated sub-surface soils are considered to be a long-term threat to human health and the environment, primarily as a further source of ground-water contamination. The preferred alternative in this Proposed Plan will address the threat to human health and the environment posed by the contamination of the landfill through: minimizing direct contact with the hazardous wastes; and reducing the release of the contaminants into the ground water.

Waste Management and Uniroyal

Impact on Wildlife

Prior to disposal activities, the natural habitat of the area was destroyed by the sand and gravel mining. Presently, the site is covered with soil which supports vegetation such as grasses and some trees. Birds, small mammals, and deer have also been seen on the site. The site is not known to be inhabited by rare or endangered species, and sensitive ecological habitats such as wetlands are not located on or near the site. Nonetheless, there is a potential for adverse impacts to the wildlife or surrounding ecology because the waste is partially exposed allowing the potential for the wildlife to come into direct contact with the waste.

Feasibility Study

U.S. EPA began work on the FS in response to the findings of the RI. The FS considers alternatives to protect human health and the environment from on-site contaminants. The goal of the cleanup action for this site is to minimize direct contact with waste and to minimize the migration of the contaminants into the ground water.

Summary of Cleanup Alternatives

The purpose of the FS is to evaluate alternatives for the clean up of Operable Unit I, the main disposal area, at the Hagen Farm site. Waste Management and Uniroyal Plastics conducted the FS under the supervision of U.S. EPA and WDNR. The five alternatives evaluated are described in detail in the FS and are summarized below:

Alternative 1: No Action

The Superfund program requires that a no-action alternative be considered at every site. It is used as a basis of comparison during the evaluation of other alternatives. The no-action alternative assumes that nothing would be done to address potential human health and environmental problems. This alternative involves no direct cost.

Alternative 2: Capping

The municipal wastes in disposal areas B and C would be put in disposal area A (the main disposal area). This consolidated disposal area would then be sloped so that rain would be directed away from the waste. The disposal area A would then be capped with a multi-layer cap, which meets federal requirements. The multi-layer cap and maintenance program of the cap would protect the public from exposure to landfill wastes and greatly reduce the amount of rain entering the landfill. Components of this multi-layer cap include a grading layer, a clay barrier, a synthetic plastic-like material, a sand and gravel drainage layer, and a vegetated top layer. The excavated area in disposal areas B and C would be filled with clean soil and vegetated. This alternative would cost about 2.7 million to implement and \$8,800 per year to operate and maintain.

Alternative 3: In-Situ Vapor Extraction and Capping

U.S. EPA's and WDNR's Preferred Alternative

In this alternative, the buried waste and soil would be treated in place (in-situ) using vapor extraction. The gas within the soil would be extracted, and treated if necessary to meet state air-quality standards. A new multi-layer cap, which meets state requirements would be constructed over the main disposal area A. The municipal wastes in disposal areas B and C would be put in disposal area A as described in Alternative 2. The components of the multi-layer cap include (from bottom to top) a grading layer, a two-foot clay barrier layer, a one foot granular drainage layer, a two foot cover soil layer, a six inch top soil layer, and a layer of vegetation (see In-Situ Vapor Extraction Proposed Plan Diagram).

This multi-layer cap would improve the efficiency of the extraction of the gas and reduce the amount of rain entering the landfill and reduce the leaching of contaminants into the ground water. This vapor extraction cleanup alternative for the landfill will remove the VOCs in the landfill as much as possible in order to reduce

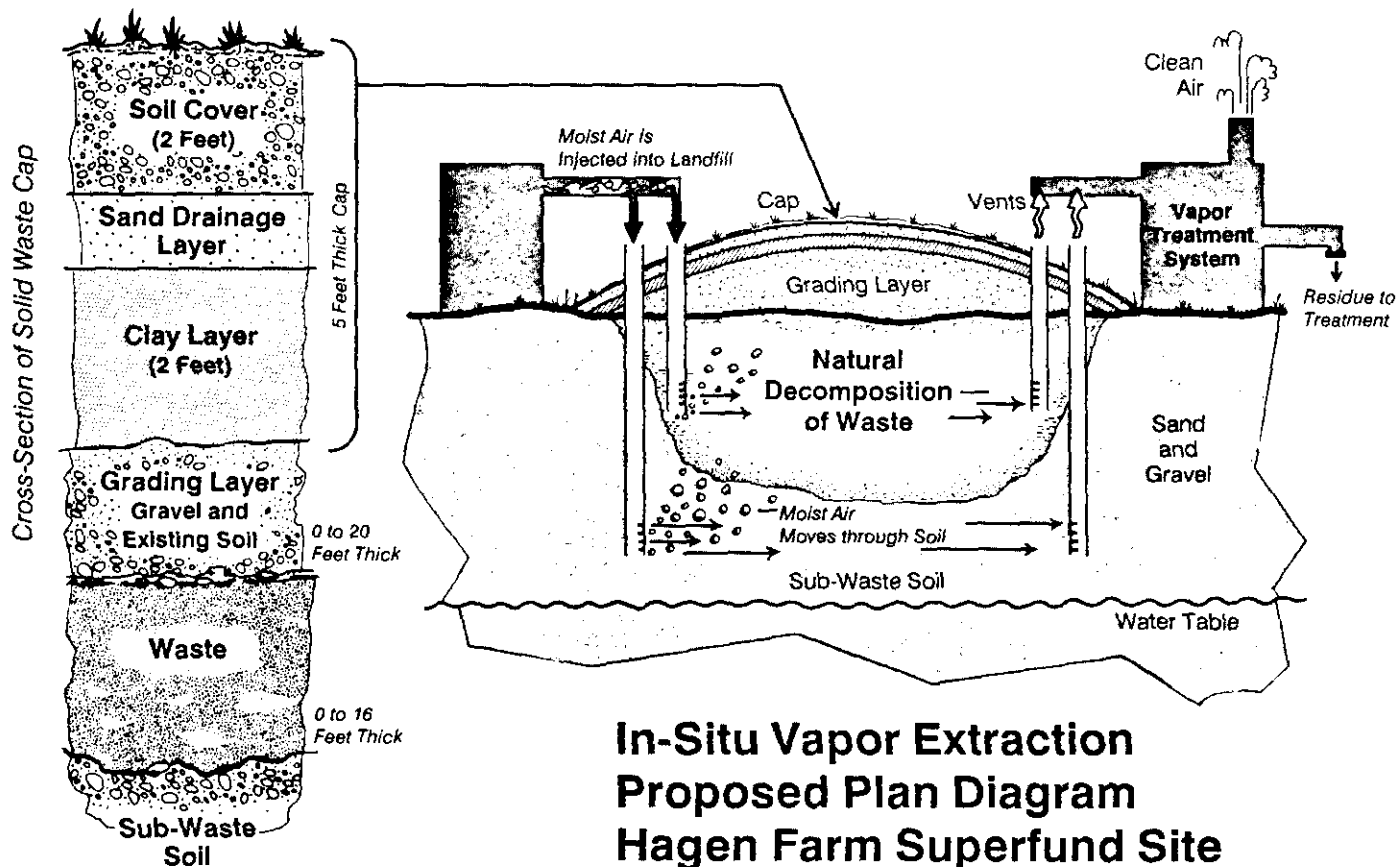
the long-term impact on the ground water. In addition, modifications of the system design can be made to help the natural bacteria break down the waste, thereby destroying some of the semi-volatile contaminants. Institutional controls such as site access and deed restrictions will be required and long-term monitoring of the cap and ground water will be instituted. This alternative would cost \$2.6 million to implement and \$80,000 per year to operate and maintain.

Alternative 4: Waste Consolidation with Biological Treatment, Vapor Extraction, and Capping

Wastes from disposal areas A, B, and C would be excavated and put into a fully controlled landfill which would be constructed at the site. A permeable cap will be placed over the waste to allow the rain to get in. Leachate produced from rain mixing with the wastes would be collected and recirculated back through the waste to promote biological activity. Nutrients and micro-organisms may be added to the waste to help the natural bacteria break down the waste. The original disposal areas will be filled with clean soil and covered with a low permeability cap. The sub-waste soils will be remediated using in-situ vapor extraction as described in Alternative 3. This alternative would cost \$12.5 million to implement and \$113,000 per year to operate and maintain.

Alternative 5: Waste Excavation with On-Site Incineration, Vapor Extraction, and Capping

In this alternative, wastes from the main disposal area would be excavated and incinerated on site. Ashes and other wastes left over from the incineration process would be treated, if necessary, and disposed of off site. The original disposal areas would be filled with clean soil. Contaminated sub-waste soil will be treated with in-situ vapor extraction as described in Alternative 3. This alternative would cost \$59.4 million to implement and \$80,000 per year to operate and maintain.



U.S. EPA's Cleanup Alternative for Operable Unit I

Based on the RI/FS, U.S. EPA, in consultation with WDNR, has identified Alternative 3 as the preferred remedy to clean up the main disposal area at the Hagen Farm site (see Alternative 3, page 5). U.S. EPA may modify the preferred remedy based on new information or comments received from the community during the public comment period. U.S. EPA's and WDNR's preferred alternative includes:

- Installation of a low permeability cap over the site;

- In-situ (in place) vapor extraction from waste/soil;
- Treatment of extracted vapors;
- Treatment of residuals from vapor treatment;
- Potential design modifications to help natural bacteria break down the waste;
- System monitoring; and
- Institutional controls.

In summary, the preferred alternative is believed to provide the best balance of trade-offs among alternatives with respect to the criteria used to evaluate remedies based on the information

available at this time. Therefore, U.S. EPA and WDNR believe the preferred alternative would protect human health and the environment, would comply with Applicable or Relevant and Appropriate Requirements (ARARs), would be cost effective, and would utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. ARARs are federal and state environmental laws pertaining to this site. This alternative provides the same benefits as Alternative 4 and is four times less expensive. This alternative will not disturb the contaminated soil during the construction, therefore, no contaminants will be released into the air.

Evaluating the Alternatives

U.S. EPA uses nine criteria to evaluate cleanup alternatives and guide the selection of a final cleanup action for Superfund sites. These criteria are summarized below.

- **Overall protection of public health and the environment:** determines whether an alternative eliminates, reduces, or controls threats to public health and the environment.
- **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs):** evaluates whether the alternative meets federal and state environmental laws pertaining to the site.
- **Long-term effectiveness and permanence:** considers the ability of an alternative to protect public health and the environment over time.
- **Reduction of contaminant toxicity, mobility, and volume through treatment:** evaluates an alternative's use of treatment to reduce the harmful nature of contaminants, their ability to move in the environment, and the amount of contamination present.
- **Short-term effectiveness:** considers the length of time needed to implement and the risks it poses for workers, residents, and the environment during implementation.
- **Implementability:** considers the technical and administrative feasibility of implementing an alternative.
- **Cost:** compares the benefits of an alternative against the costs to design, construct, operate and maintain it.
- **Community acceptance:** will be addressed in the Record of Decision (ROD). The ROD will include a Responsiveness Summary that presents public comments and the EPA's responses to the comments.
- **State acceptance:** considers whether the state agrees with the U.S. EPA's analyses and recommendations as presented in the RI/FS and the Proposed Plan.

Comparison of Alternatives

Overall Protection of Human Health and the Environment

Alternative 1 (No Action) will not provide protection from risks associated with site contaminants. Alternatives 2 through 5 will protect against risks associated with direct contact with wastes by preventing exposure through capping.

None of the proposed alternatives will provide protection from risks which may be associated with contaminants currently existing in ground water. Existing ground-water contamination will be addressed in the RI for Operable Unit II. Continued ground-water impacts from site contaminants will be reduced by Alternatives 2 through 5. Alternative 3, In-Situ Vapor Extraction, would provide protection from exposure to the waste during implementation because treatment would be done in place, and,

therefore, excavating the waste would be unnecessary. Direct contact exposure to waste would occur in Alternatives 4 and 5 due to excavation of the main waste area. None of the alternatives are expected to pose additional threats to the surrounding environment.

Compliance with ARARs

Alternative 1 does not meet the state and federal landfill closure requirements. Alternatives 2 through 5 comply with state and federal regulations for this Operable Unit.

Long-Term Effectiveness and Permanence

Remaining risks associated with direct contact with wastes will be reduced by each alternative through capping, which will prevent direct exposure to wastes. Alternatives 4 and 5 will reduce these risks further by breaking down or incinerating contaminants in wastes. Risks associated with direct

contact with the waste as a result of future site development will be minimized by all of the alternatives by deed restrictions, and restricting site access.

Remaining risks associated with contaminated ground water were considered the greatest for Alternative 2, because no additional treatment of VOCs remaining in the waste would occur. Alternatives 3 through 5 provide the lowest remaining risks from ground-water exposure.

Effectiveness is dependent on maintaining the integrity of the cap over a long period for Alternative 2, and partially dependent for Alternative 3. Alternative 3 is anticipated to be effective in achieving cleanup levels for VOCs and semi-volatiles, but will not address chemicals that do not evaporate readily, like phenols and barium.

Alternative 1 will not be effective in reducing ground-water contamination. Alternative 2 will not remove

contaminants within the wastes which could ultimately move to the ground water.

Alternative 4 is anticipated to be effective in achieving preliminary cleanup levels through the biological breakdown. Tests at other sites have shown biological treatment to be a promising technology. However, its application to this site would have to be verified with testing. The testing would delay time for implementation. Alternative 5 is anticipated to be effective in achieving preliminary cleanup levels through permanent contaminant destruction through incineration. Each of Alternatives 2 through 5 are anticipated to require system monitoring and maintenance of the landfill cover materials.

Reduction of Toxicity, Mobility or Volume Through Treatment

Alternatives 3 through 5 will reduce toxicity, mobility, and volume of the contamination at the site through treatment of waste and sub-surface soils.

Alternative 4 uses leachate recirculation in the waste to promote the biological breakdown of the waste.

However, reduction of the level of contamination down to desired levels may be difficult due to the uncertainty of the biological processes. During treatment, the waste will be in a RCRA-type landfill where the migration of contaminants into the ground water will be minimized to the extent possible.

Alternatives 1 and 2 do not provide treatment of either the waste or the subwaste soils. However, Alternative 2 does provide a low permeability cap to reduce the migration potential of the contaminants into the ground water.

Short-Term Effectiveness

Alternatives 4 and 5 will require the longest time to implement due to the

substantial requirements to site new disposal and treatment facilities. At least one, and as many as two to three years, may be required to comply with air and water quality discharge requirements, and perform the necessary treatability studies and test burns. These steps would likely require several years to complete before a full scale system would be operational.

Additional risks posed to workers cleaning up the site and to the community during the implementation of the remedies were anticipated to be the greatest for Alternative 5, and the risks were related to potential exposure to incinerator off-gases. However, these risks are anticipated to be low because monitoring of air contaminants at the site boundary will be conducted to ensure that acceptable levels are maintained. Alternatives which required excavation of site wastes (Alternatives 4 and 5) may pose a potential risk to workers cleaning up the site via direct exposure to wastes, dusts, and VOCs. Alternative 5, Waste Excavation with On-Site Incineration, may pose added risks to the community and workers due to increased hazardous air emissions. However, the levels of potential contaminant exposure to workers would be minimized by the use of personal protective equipment and standard dust control measures in each alternative. Alternatives 1, 2 and 3 are anticipated to pose minimal risks to workers and to the community because they do not involve excavating the waste. None of the alternatives are expected to pose additional risks to the surrounding environment, community, or on-site workers.

Implementability

Difficulties associated with this alternative include obtaining a supplementary fuel source onsite, disposing of the ash, supplying the sufficient water needed for the scrubbers, and treating and disposing the contaminated scrubber water. Alternatives 3 and 4 would both be

relatively straightforward to implement technically.

Alternative 1 does not involve tasks which require materials or services; therefore, it is the easiest to implement of the five alternatives from the standpoint of availability of services and materials. Alternatives 2 through 4 require services and materials that should be available. It is assumed that appropriate material to perform capping could be obtained from another source located within four miles of the site. For Alternative 5, materials and services are available, but their availability is more restricted than for other alternatives.

Cost

Alternative 1 involves no direct monetary costs.

Alternative 2 involves a capital (start-up) cost of \$2.7 million (depending on which cap option is selected), operation and maintenance (O&M) costs of \$8,800 per year, and a present net worth (PNW) of \$2.8 million. Present net worth is the total cost of an alternative in terms of today's dollars.

Alternative 3 involves a capital cost of \$2.6 million, O&M costs of \$80,000 per year, and a PNW of \$2.9 million.

Alternative 4 involves a capital cost of \$12.5 million, O&M costs of \$113,000 per year, and a PNW of \$13.1 million.

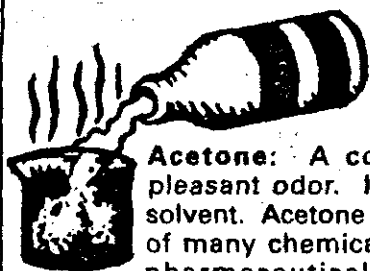
Alternative 5 involves a capital cost of \$59.4 million, O&M costs of \$80,000 per year, and a PNW of \$59.8 million.

State Acceptance

The State of Wisconsin has concurred with the preferred remedy for the Hagen Farm site.

Community Acceptance

This will be addressed in the ROD after public comments on the FS and this Proposed Plan are received.



CHEMICALS OF CONCERN

Acetone: A colorless liquid with a pleasant odor. It is used primarily as a solvent. Acetone is used in the production of many chemical substances, including pharmaceuticals, pesticides and lubricating oils. Prolonged or repeated contact with skin or eyes may cause irritation. Prolonged inhalation may produce headaches and throat and bronchial irritation.

Barium: A soft, silvery-white metal, naturally found in the earth. It is used in various alloys and in rat poison. It can be toxic by inhalation, ingestion, or direct contact.

Benzene: A colorless liquid with an aromatic odor. It is widely used in the manufacture of many chemical substances and in the rubber industry. It is also added to gasoline as an octane booster. There is evidence that long-term exposure in the workplace can cause leukemia.

Benzoic Acid: A chemical used to season tobacco and in perfumes and germicides. Vapors are highly toxic if inhaled.

2-Butanone: A clear, colorless liquid with a fragrant, mint-like odor. It is used as a solvent in adhesives, cleaning fluids, printing, and paint removers. It can be toxic by inhalation or ingestion.

Butyl Acetate: A chemical used in the manufacture of lacquers, photographic film, artificial leather, and plastics. It is toxic by inhalation, ingestion, or direct skin contact.

Chlorobenzene: A solvent used in the manufacture of paints. It is toxic by inhalation, ingestion, or direct skin contact.

1,2 Dichloroethylen: A clear, colorless, volatile liquid used in solvents, lacquers, perfumes, or as a leaded-gas additive. It is toxic by inhalation, ingestion, and skin contact.

Ethylbenzene: A chemical commonly found in petroleum products. It can be toxic by inhalation, ingestion, or direct skin contact.

Hydrocarbons: Any of numerous organic compounds like benzene that contain only hydrogen and carbon. Derived principally from petroleum, coal tar, and vegetable sources. Some hydrocarbons are suspected to cause cancer.

Lead: A metal which can be toxic by ingestion or by inhalation of contaminated dust or fumes. It accumulates in the body, and can build up to dangerous levels over long periods of time. It can cause brain, bone, and nerve damage.

Mercury: A naturally-occurring metal found mainly in Spain and Yugoslavia. Mercury has many uses in industry including: in pulp and paper manufacturing; in agriculture as a fungicide; and in measuring instruments. It is highly toxic by skin absorption or inhalation of fumes or vapors.

Phenols: By-products of dye and resin manufacturing, as well as petroleum refining. They are toxic by ingestion, inhalation, skin absorption, and strongly irritate tissues.

Phthalates: A group of semi-volatile compounds often used in making plastics and other petroleum-based products.

Semi-Volatiles: Liquid compounds similar to VOCs, but that evaporate less readily than VOCs. Many are suspected or known to cause cancer or other illnesses.

Tetrahydrofuran: A solvent used in the manufacture of polyvinylchloride (PVC). Tetrahydrofuran is moderately toxic by inhalation, ingestion, or direct skin contact. It can also cause liver and kidney damage.

Toluene: A clear liquid with a sweet pungent odor. It is used in the manufacture of organic compounds, dyes and explosives. Toluene is used as a solvent for paints and coatings and as an ingredient in automobile and aviation fuels. Skin or eye contact may cause irritation and drying of skin. Over exposure to toluene may result in central nervous system depression.

Vinyl Chloride: A gaseous raw material used in plastics, floor tiles, food packaging, and as a propellant in aerosol containers. Studies have shown that vinyl chloride causes liver cancer. Lung cancer and cancer of the lymphatic and nervous systems also have been reported.

Volatile Organic Compounds (VOCs): A group of organic compounds that has a tendency to evaporate when exposed to air. Due to this tendency, VOCs disappear more rapidly from surface water than ground water. Since ground water does not usually come into contact with air, VOCs are not easily released and can be present for many years in ground water used for drinking. When present in drinking water, VOCs may pose a potential threat to human health.

Xylenes: A group of chemicals used as solvents and as an ingredient in paint, lacquers, enamels and rubber cement. They may be toxic by inhalation or ingestion.

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on this Proposed Plan for the clean up of the Hagen Farm main disposal area is important to the U.S. EPA. Comments provided by the public are valuable in helping U.S. EPA select a final remedy for the site.

You may use the space below to write your comments, then fold and mail. Comments must be postmarked by August 10, 1990. If you have any questions about the comment period, please contact Susan Pastor at U.S. EPA's toll free number at: 1-800-621-8431.

Name _____

Address _____

City _____ State _____

Zip _____

HAGEN PUBLIC COMMENT SHEET

Fold on Dashed lines, Staple, Stamp, and Mail

Name _____
Address _____
City _____ State _____
Zip _____

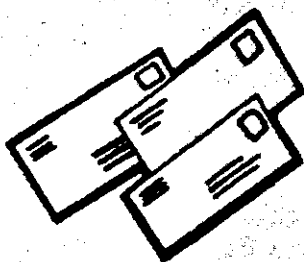
Place
Stamp
Here

Susan Pastor
Community Relations Coordinator
Office of Public Affairs (5PA-14)
U.S. EPA, Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Public Comments Invited

U.S. EPA and WDNR encourage you to share your views about the alternatives presented in the FS and this Proposed Plan, as well as on other information available in the Administrative Record file. Comments provided by residents and others will be considered by U.S. EPA before a remedy is selected for the clean up of the main disposal area at the Hagen Farm site.

U.S. EPA and WDNR provide you with two methods to let the agencies know your opinion during the public comment period which will run from July 11 to August 10, 1990:



1. You may send written comments to Susan Pastor, the Community Relations Coordinator for the Hagen Farm Superfund site. Her address is listed under "For More Information." Comments must be postmarked by August 10, 1990.

2. You may submit oral and written comments to U.S. EPA and WDNR during the public meeting at 7 p.m., August 2, 1990 at the Dunkirk Town Hall. A court reporter will be present to record all oral comments made during the meeting.

After the public comment period ends, U.S. EPA will review and consider all comments before making the final decision on the clean up of the landfill.

U.S. EPA will respond to all relevant comments in a document called a Responsiveness Summary. The Responsiveness Summary will be attached to the Record of Decision (ROD) and will be made available to the public in the information repositories, and in the Administrative Record file (page 11). The ROD is a public document prepared by U.S. EPA that outlines the selected cleanup method that will be used at a Superfund site.

This Proposed Plan, the Feasibility Study Report, and other documents related to the site will be available for review at the information repositories located at the Stoughton Public Library and at Klongland Realty as well as the Administrative Record file located at the Stoughton Public Library and at U.S. EPA in Chicago.

For more information on the Hagen Farm site, please contact Susan Pastor at U.S. EPA's toll free number: 1-800-621-8431.

The Superfund law requires U.S. EPA to provide the public with the opportunity to submit written and oral comments concerning the remedial alternatives and the preferred cleanup remedy.

MAILING LIST

If you did not receive this fact sheet in the mail, then you are not on our mailing list. If you wish to be placed on the Hagen Farm site mailing list, please fill out this form, detach, and mail to:

Susan Pastor

Community Relations Coordinator
Office of Public Affairs (5PA-14)
U.S. EPA, Region 5
230 South Dearborn Street
Chicago, Illinois 60604

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____

For More Information

Information Repository

Information repositories are files maintained by U.S. EPA in your community that contain information about the Superfund program and the Hagen Farm site. The investigation work plan, reports, and the Hagen Farm site fact sheets are among the documents available for review in the repository. You are encouraged to consult these documents for more detailed information about the activities described in this fact sheet. There are two Hagen Farm repositories:

Klongland Realty

650 South Van Buren Street
Stoughton, Wisconsin
(608) 873-7241
Contact: Tim Klongland
Dunkirk Town Clerk

Stoughton Public Library

304 South Fourth Street
Stoughton, Wisconsin
(608) 873-6281
Contact: Pat Erickson
Head Librarian

Administrative Record File

An Administrative Record which contains additional information on the Hagen Farm site, has been established in conjunction with the repository at the Stoughton Public Library as well as at the U.S. EPA office in Chicago. The cleanup decision is based on information contained in the Administrative Record.



U.S. EPA Contacts

U.S. EPA officials are available to answer any questions you may have about the Hagen Farm Superfund site. Please contact:

Susan Pastor

Community Relations Coordinator
Office of Public Affairs
(312) 353-1325

Jae B. Lee

Remedial Project Manager
Office of Superfund
(312) 886-4749

U.S. EPA, Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Toll-Free Phone Number:
(800) 621-8431
9 a.m. to 4:30 p.m.
Central Time

WDNR Contacts

Jim Leverance

Community Relations Coordinator
(608) 266-2632

Terry Evanson

State Project Manager
(608) 266-0941

Wisconsin Department of Natural Resources
Bureau of Solid and Hazardous Waste
Box 7921
Madison, Wisconsin 53707

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Madison, Wisconsin 53707

Public Comment Period

The public comment period runs from July 11, to August 10, 1990. You may send written comments to:

Susan Pastor

Community Relations Coordinator
Office of Public Affairs (5PA-14)
U.S. EPA, Region 5
230 South Dearborn Street
Chicago, Illinois 60604

After the public comment period ends, U.S. EPA will review and consider the submitted comments when making its final decision for Operable Unit I (the main disposal area). The cleanup actions chosen may, therefore, be different than the preferred alternative in this Proposed Plan.

U.S. EPA will respond to comments in a document called a Responsiveness Summary. The Responsiveness Summary will be available to the public as part of the Record of Decision (ROD) for the site. The ROD is a document issued after the public comment period has ended. It describes the final remedy for the clean up of the site selected by U.S. EPA. You are encouraged to review this Proposed Plan, Feasibility Study Report, and other documents related to the site, which are available in a special section in the site information repositories as well as at the Administrative Record file locations.



U. S. Environmental Protection Agency
Region 5
Office of Public Affairs (5PA-14)
230 South Dearborn Street
Chicago, IL 60604



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